Appln. No. 09/801,825 – KOJIMA et al.

Attorney Docket: 70120-276646

REMARKS

Claims 1, 3-9, 11-21 are pending in this application. Claims 2 and 10 have been canceled herein without prejudice or disclaimer. Claims 11-16 have been withdrawn from consideration. Claims 17-21 are newly added.

Reconsideration in view of the following remarks is respectfully requested.

Claim Rejections – 35 U.S.C. § 112

Claims 1-10 were rejected under 35 U.S.C. § 112, first paragraph. Applicants have amended claims 1-10 to clarify the claim language further.

Claims 2 and 10 have been canceled without prejudice or disclaimer. Therefore, the rejection of claims 2 and 10 under § 112, first paragraph is rendered moot.

Claim 1 has been amended to recite, *inter-alia*, "supplying a cleaning agent including one of a carboxylic acid and a derivative of carboxylic acid into the chamber such that the cleaning agent contacts the material to form a metal complex of the metal and the cleaning agent." By this amendment, Applicants have clearly identified a cleaning agent.

Therefore, Applicants respectfully submit that claims 1 and 3-9 are in full compliance with § 112 and respectfully request that the rejection of claims 1-10 under § 112, first paragraph be withdrawn.

Claims 1-10 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 2 and 10 have been canceled without prejudice or disclaimer. Therefore, the rejection of claims 2 and 10 under § 112, second paragraph is rendered moot.

Claims 1 and 9 have been amended to clarify the claim language further. Claims 1 and 9 have been amended to recite, *inter-alia*, "A method of cleaning a treatment chamber." Applicants have deleted the piping, the exhaust and the vacuum pump elements from the claims.

The Examiner questions which of the metal film or the metal component of the chamber form a metal complex with the vaporized cleaning agent and questions which of the metal film of a metal component is being sublimed. Applicants have amended claims 1 and 9 to recite, *inter-alia*, "forming a material including a metal inside the chamber; supplying a cleaning agent including one of a carboxylic acid and a derivative of carboxylic acid into the chamber such that the cleaning agent contacts the material to form a metal complex of the

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metal and the cleaning agent; and subliming the metal complex by using a heat source."

Therefore, it is clear the material that is formed inside the chamber when in contact with the cleaning agent forms a metal complex and the metal complex is sublimed.

Therefore, Applicants respectfully submit that claims 1 and 3-9 are in full compliance with § 112 and respectfully request that the rejection of claims 1-10 under § 112, second paragraph be withdrawn.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 5-7 and 9-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Koide et al. (U.S. Patent No. 5,993,679).

Claim 10 has been canceled without prejudice or disclaimer. Therefore the rejection of claim 10 under § 102(b) is rendered moot.

Claims 1 and 9 have been amended to recite, inter-alia, "supplying a cleaning agent including one of a carboxylic acid and a derivative of carboxylic acid into the chamber such that the cleaning agent contacts the material to form a metal complex of the metal and the cleaning agent."

Koide et al. simply teaches a method of cleaning metallic films within a thin film deposition apparatus by treating with a β-diketone (e.g., hexafluoroacetylacetone) as a cleaning gas. Koide et al. does not disclose, teach or suggest using a cleaning agent including a carboxylic acid or a derivative of carboxylic acid, as recited in claims 1 and 9.

Consequently, for at least this reason, Koide et al. does not disclose, teach or suggest the subject matter recited in claims 1 and 9.

Therefore, Applicants respectfully submit that claims 1 and 9, and claims 5-7 which depend from either claim 1 or claim 9, are patentable. Thus, Applicants respectfully request that the rejection of claims 1, 5-7 and 9-10 under § 102(b) be withdrawn.

Claims 17-21 are newly added. Support for the claims language may be found throughout the original disclosure.

Claim 17 recites, inter-alia, "forming a metal complex by contacting a cleaning agent including one of a carboxylic acid and a derivative of carboxylic acid with the material including the metal."

As stated above with respect to claims 1 and 9, the relied upon reference Koide et al. does not disclose, teach or suggest using a cleaning agent including one of a carboxylic acid Appln. No. 09/801,825 - KOJIMA et al.

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and a derivative of carboxylic acid. Therefore, Applicants respectfully submit that claim 17 and claims 18-21 which are dependent therefrom are patentable.

CONCLUSION

In view of the foregoing, the claims are now in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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